VOLVO

1800 E / 1800 ES

both with Electronic fuel injection

We sold our first 1800 sports car in 1961.

Since then the car has gone through thousands of engineering refinements and three designation changes: from P-1800 to 1800S and, in 1970 to 1800E.

This year we're introducing the 1800ES.

And while the shape is new and the designation is new, the engineering inside is not. It's the result of an evolutionary process 11 years in the making.

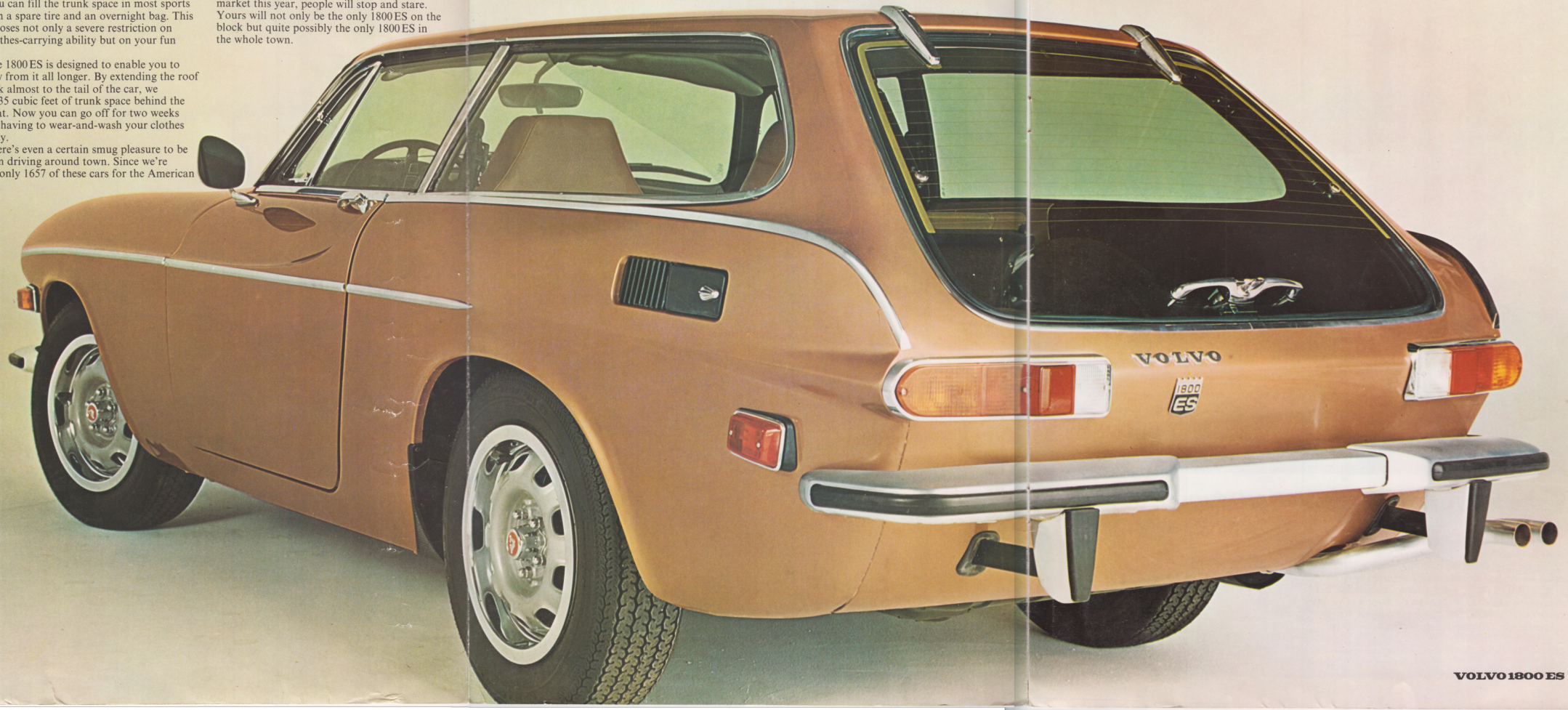
So it's reasonable to expect that the 1800ES will enjoy the same reputation as other 1800's before it: That of a trouble-free sports car.

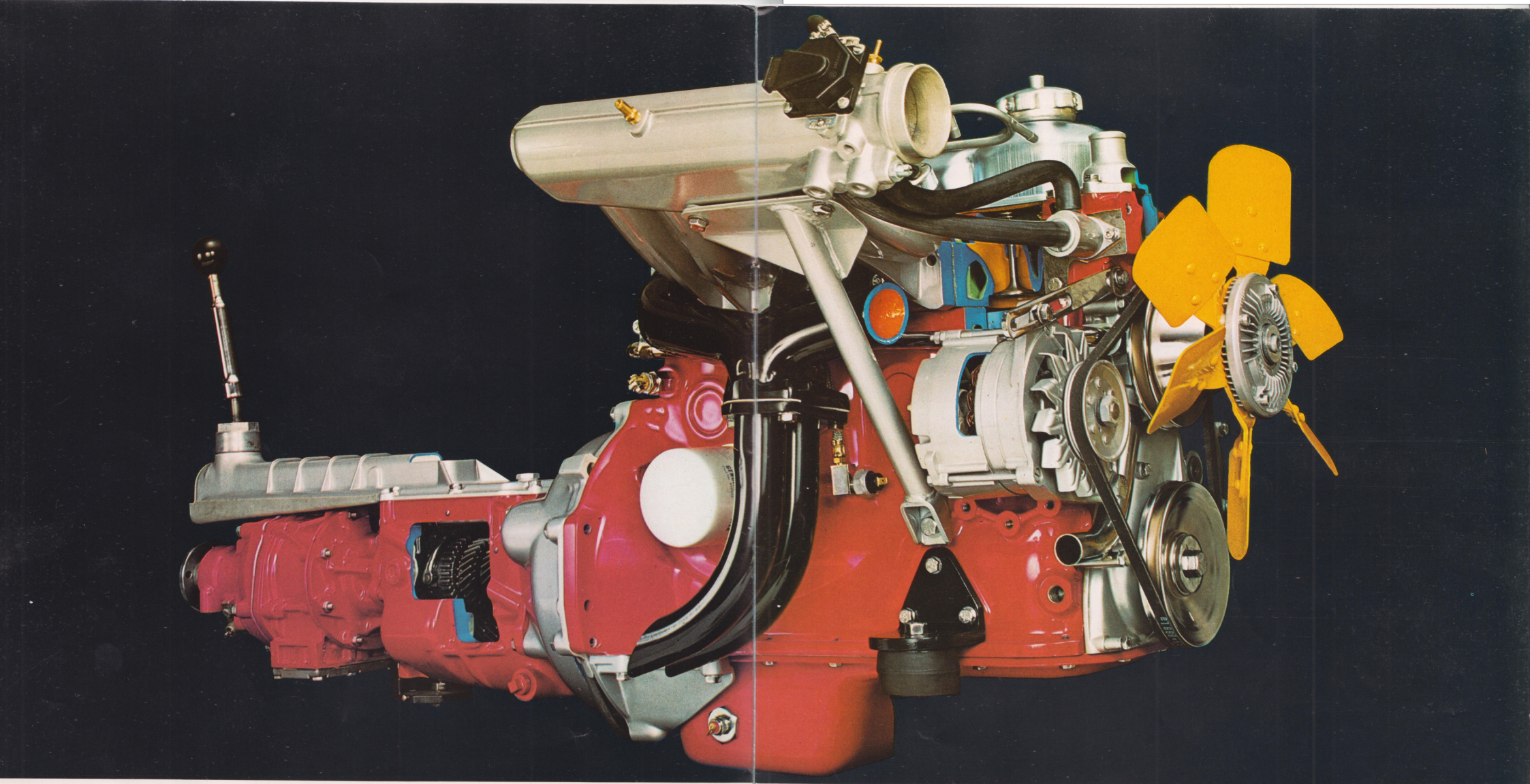
We extended the roof line to prolong your enjoyment

You can fill the trunk space in most sports cars with a spare tire and an overnight bag. This fact imposes not only a severe restriction on your clothes-carrying ability but on your fun as well.

The 1800 ES is designed to enable you to get away from it all longer. By extending the roof line back almost to the tail of the car, we created 35 cubic feet of trunk space behind the front seat. Now you can go off for two weeks without having to wear-and-wash your clothes every day.

There's even a certain smug pleasure to be gained in driving around town. Since we're making only 1657 of these cars for the American market this year, people will stop and stare. Yours will not only be the only 1800 ES on the block but quite possibly the only 1800 ES in the whole town.



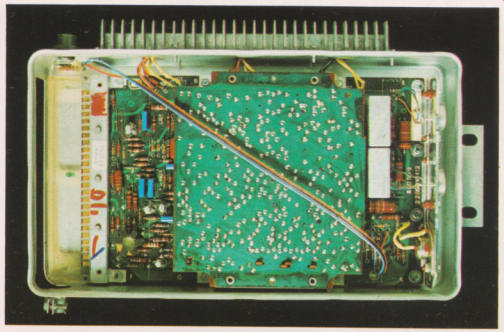


The electronic fuel injection engine . . .

In 1970, we replaced the carburetors in Volvo's sports car with an electronic fuel injection system. Coupled with a little computer unit under the dashboard, the system metered out the exact amount of fuel the engine required to work at peak efficiency. The result was a cleaner exhaust and cleaner air. This year we've made the engine run on 91-octane gasoline. It not only produces cleaner air but better gas mileage and performance that only a test drive can demonstrate.

Of course, how fast you can go has never been of prime concern to Volvo. We're more interested in how long you can keep going. The B 20 F engine has been bench tested at the equivalent of 90 mph for 60,000 miles straight without breaking.

. . . and the computer that controls it.



The computer has electronic sensors that monitor air and coolant temperature, air pressure, rpm's and throttle position. From these five readings, the computer determines what precise quantity of fuel should be injected into the cylinders. And orders it injected.

Engine specifications
B 20 F, four-cylinder electronic fuel injection engine. Five-main-bearing crankshaft. Electric fuel pump. Fuel pressure regulator and overflow sensor. Full-flow oil filter.

Displacement	121 cu. in.
Bore	3.50 in.
Stroke	3.15 in.
Compression ratio	8.7:1

Cooling system
Sealed with anti-freeze. Coolant circulation by engine-driven pump. Capacity 9.0 quarts.

It gets you where you're going in one piece.

A Volvo 1800 is built as one rigid unit, not pieced together. With coil springs and telescopic shock absorbers all around, even a lousy road won't rattle it.

Enemy motorists won't un-nerve you quite so much. Four-wheel self-adjusting power disc brakes are standard. They can bring you from 60 mph to a straight, true emergency stop in less than 4 seconds.

Your arm won't fall off from shifting all day. The engine with its 4-speed synchronized transmission delivers enough pulling power (torque) at low rpm's to make city driving practically painless. (At highway speeds, an electrically-operated overdrive on the 4th gear cuts rpm's and makes the engine's work easier.)

Or, you can avoid shifting altogether with an optional three-speed fully automatic transmission.

And just to be on the safe side, you ride in a compartment surrounded by boxed steel pillars. To protect you from the sports in the other cars.

Transmission and Other specifications
Four-speed manual, fully synchronized with remote control shift linkage. Electrically-operated overdrive on fourth gear.
Ratios:

1st	3.13:1
2nd	1.99:1
3rd	1.36:1
4th	1.00:1
Reverse	3.25:1
Overdrive	0.797:1

Optional three-speed fully automatic transmission with floor-mounted P-R-N-D-2-1 shift quadrant.

Clutch
Diaphragm spring type, single dry plate. Diameter: 8.5 in.

Steering gear
Type cam and roller. Turns, lock to lock, 3¼. Turning circle diameter: Between curbs – 31 ft. 6 in.

Rear axle
Ratios: Standard transmission 4.30:1, Automatic 3.91:1.

Front suspension
Independent with ball joints and rubber-mounted control arms. Anti-sway bar. Coil springs with telescopic shock absorbers. Drive shaft components and front suspension are lubricated for life.

Rear suspension
Solid rear axle carried by longitudinal rubber-mounted support arms and torque rods. Transverse location by rubber-mounted track rod. Coil springs with telescopic shock absorbers.

Brake system
Four-wheel, power assisted self-adjusting disc brakes. Triangle split dual circuit system, each circuit operating on both front wheels and one rear wheel. Special rear wheel pressure relief valves ensure stability during emergency braking. Warning light signals if one circuit fails.

Wheels and tires
Balanced pressed-steel with safety rims. Size 5½J × 15". Chrome wheel nuts and trim rings. 185/70 HR 15 radial tyres.

VOLVO 1800 E

Our seats can out-perform any other sports car's seats.

Bucket seats are standard equipment in both the 1800E and ES.

They're leather covered. But more important, they are designed by orthopedic surgeons who are well aware that no two human bodies are exactly the same.

So they adjust in a variety of ways to fit a multitude of individual shapes.

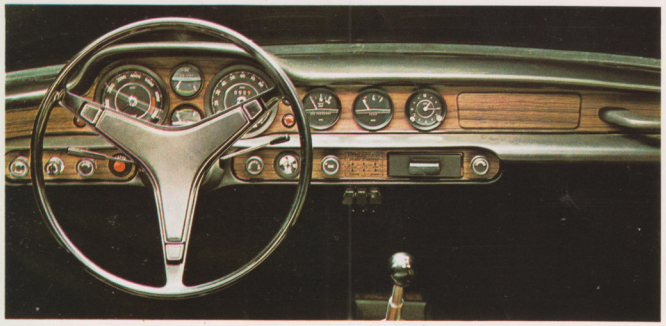
They travel forward and backward 7.9 inches.

They can be raised or lowered to different heights.

The backrests can be reclined to any position.

They can be made harder or softer with a built-in device called an infinitely variable lumbar support.

The result is that even at the end of a long trip, you'll arrive relaxed. And can look forward to the pleasure ahead. Rather than the pain behind.



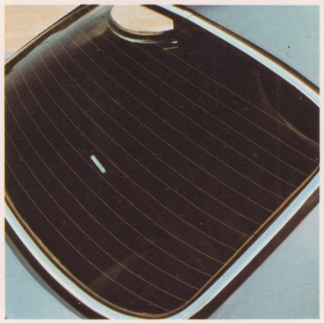
Instrumentation (including the standard tachometer) and dashboard layout in the 1800E and ES are the same. It's just what's behind the front seats that's different.

The 1800ES rear window/tailgate opens up a carpeted luggage area 59.8 inches long by 49.2 inches wide by 22.4 inches high.

Which is not only great for a sports car but not bad for some sedans.

Front seat belt locks have their own light so you can find them at night. If the driver doesn't buckle his belt a warning lamp on the dash will remind him to . . . day and night.

The rear seat backrest can be dropped to provide a flat surface for storing extra luggage. Which can then be strapped down.



A grid of fine wires embedded in the rear window of the 1800E defrosts it electrically. The 1800ES uses the same system. It's standard equipment.

Automatic transmission with an illuminated floor-mounted P-R-N-D-2-1 gear selector is available at extra cost.

Wide 185/70 HR 15 radial-ply tires are standard. So are chrome wheel nuts and trim rings.

Brakes are power assisted four-wheel discs for fade-free performance. They're self adjusting so you'll always have as much stop as you have go.

Look at the 1800E and ES as sports cars. But think of them as Volvos.

Volvos are cars with the adjustable bucket seats that Industrial Design magazine called ". . . an orthopedic delight . . .".

Volvos are cars with four-wheel power disc brakes. And with two split braking circuits of three wheels each.

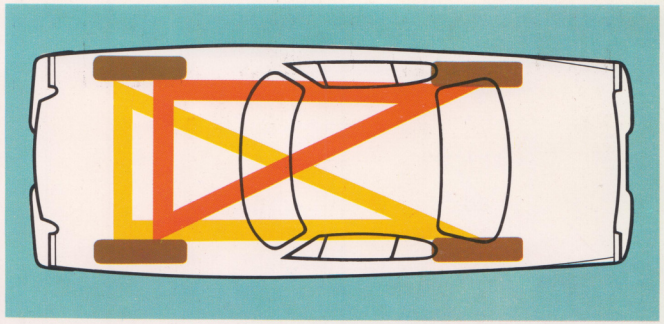
Volvos have 6 coat finishes outside where most cars have only four.

Volvos have two undercoats where most cars have only one.

Volvos are built with the expectation that the original owner will want to keep it — and will be able to keep it — long after he's finished paying it off.

In all these regards, the 1800 E and 1800 ES are Volvos.

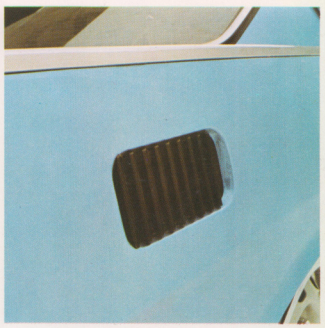
We've improved the rear seat to a point where we can tell you it's upholstered in leather, comes equipped with two lap belts.



Each of the two braking circuits operates on the two front wheels and one rear wheel. Since each front brake furnishes 30% of the car's total braking power while each rear brake supplies 20%, you always have 80% of the car's braking power working for you even if one circuit fails.

Three-point retracting seat belts are standard for the bucket seats. When the car is in use, seat belts should never be found in this position.

The 1800E's trunk is bigger than the bread-box you find behind most sports cars. Combined with the back seat luggage area, you'll be able to take what you need to where you're going.



The flow-through ventilation system keeps air circulating in the car even when the windows are closed. The extractor vents are designed to let out air but not let any exhaust in.

Other specifications:

Electrical system

Voltage	12
Battery capacity	60 amp hrs.
Alternator rating	55 amp
Starter motor output	1 hp

Body
Integral all-welded steel body. Fully rust-proofed and undercoated. Passenger compartment with framework of boxed steel members. Energy absorbing front and rear ends.

Fuel tank
Located at rear. Capacity approx. 11.9 gallons.

Lighting equipment
High and low beam headlights controlled by column-mounted lever which also controls turn and lane changer signals. Automatic backup lights. Rheostat-controlled instrument lighting. Four-way emergency flasher. Illuminated seat belt lock. Map light.

Instrumentation
Speedometer with tripmeter and odometer. Tachometer. Coolant and oil temperature gauges. Oil pressure gauge. Fuel gauge. Electric clock. Warning lamps for:
- charging
- high beam
- turn indicators
- overdrive
- handbrake applied and faulty brake circuit
- "fasten seat belts"

Other Standard equipment
Three-point, automatic retracting seat belts on front seats. Two lap safety belts at rear. Laminated high-impact windshield. Tinted glass. Two-speed electric windshield wipers. Electric windshield washer. Thermostatically-controlled heating system with two-speed fan. Separate fresh air intakes below dashboard on each side. Air extraction vents on rear fenders. Lockable console on tunnel. Padded sun visors. Day/night rearview mirror. Cigarette lighter. Spare wheel, safety jack and tool kit. Electrically heated rear window.

Dimensions and weights

Wheelbase	96.5 in.
Track	51.6 in.
Overall length 1800E	171.3 in.
Overall length 1800ES	172.6 in.
Overall width	66.9 in.
Overall height, unloaded	50.4 in.
Headroom front seat	36.8 in.
Front seat width	19.7 in.
Front seat, height	27.6 in.
Curb weight, approx.	2,490 lbs.

The factory reserves the right to make changes at any time, without notice, in prices, colors, materials, equipment, specifications and models and also to discontinue models.

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VOLVO

AB VOLVO GÖTEBORG SWEDEN

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